

The brown species, more or less ornamented with ivory colour, are, however, confined to the far north of Australia and New Guinea. Strangely, the presence of *Trigona* in Western Australia was not established until January 1931, when Dr. H. T. Webster, of Wyndham, presented to the author a number of typical workers of *T. carbonaria angophorae* Ckll. The second record, a very recent one, is from Dr. D. L. Serventy, of Perth. On November 25, 1952, at Quarrina Well, Coolawanyah Station, on the Fortescue River, he collected a number of workers of *T. cssingtoni* Ckll., one of the prettiest of the brown group. When forwarding the specimens to me the collector stated they were abundant and asked: what is the southern limit of their range?

Rica Erickson, of Bolgart, has collected a large number of bees from her district, which is 90 miles or so north of Perth, but so far the author has not received any specimens of the social *Trigona*.

T. cssingtoni was described from Port Essington, in Arnhem Land, and the Coolawanyah record represents a huge extension of range. Dr. Serventy and Major Whittell (1948) have discussed Baldwin Spencer's terms, Bassian Eyrean, etc., for certain geographical regions in Australia, but they prefer to apply them to faunal groups rather than regions, and this concept has much to commend it. With birds the tropical Torresian fauna ends abruptly at the southern boundary of the Kimberley Division, and comparatively few Torresian elements penetrate south among the predominating Eyrean avifauna. With the native bees it is unknown to what extent the Torresian fauna extends south of the Kimberley. *T. cssingtoni* is evidently one such element intruding into the Pilbara country, but future collecting must show how far further south it ranges and how many of its fellow-Torresian insects accompany it. Insect zoogeographical studies still lag far behind those on birds.

—TARLTON RAYMENT, Sandringham, Victoria.

Aggregations of Whistling Eagles and Other Birds.—That the Whistling Eagle (*Haliastur sphenurus*) occasionally congregates into large flocks in the non-breeding season is a familiar enough fact, but few actual field observations of such occurrences have been published.

On March 5, 1953 on a trip to the South-west with Mr. D. L. McIntosh, two large flocks of Whistling Eagles were observed together with large flocks of the White-faced Heron (*Notophoxya novae-hollandiae*), and other birds, on some drying-off swamps about five miles north of Manjimup.

The first swamp visited still contained a few acres of shallow water and the following birds were seen there:—Whistling Eagle (45 individuals), White-faced Heron (32), Pacific Heron (*N. pacifica*) (15), Little Pied Cormorant (*Phalacrocorax melanoleucos*) (31), Black Cormorants (*P. carbo* and *P. sulcirostris*) (1 of each), Ducks (*Anas gibberifrons* and *A. pockilohyncha*) (ca. 40, mostly the

former species). When first observed all of the birds were either in the water or perched on trees growing in and around the swamps, and all flew on our approach. The day was sunny with some large cumulus cloud and was apparently ideal for soaring. The ducks, most of the White-faced Herons and a couple of Pacific Herons soon returned to the swamp, but all of the eagles and cormorants and the remainder of the herons soared upwards in a tight spiral until almost out of sight, and stayed aloft for all of the time (about half-an-hour) that we were there.

Another swamp, of about ten acres approximately two miles from this first one, was completely dry and on one part of it was a flock of 35 White-faced Herons and 2 Pacific Herons. On a somewhat smaller recently dried-off swamp close by, was a flock of approximately 30 White-faced Herons. Feeding close to them and within a few feet of an area of dense *Typha* were 8 Swamp-hens (*Porphyrion porphyrio*).

The last swamp visited was a very large one still containing many acres of shallow water, bordered by wide mud-flats. Here were counted 95 Whistling Eagles, approximately 40 White-faced Herons, a number of ducks (too far away to be identified or counted accurately), and a solitary Pelican (*Pelecanus conspicillatus*). When first seen about half of the eagles were soaring together in a close group directly above some trees growing in the swamp and on which the rest of the eagles were perched in groups. On our approach all of the perching eagles took to the air together with the Pelican and some of the herons. The eagles all kept to the one soaring group for quite a long time and then gradually descended one by one to their tree perches.

On March 6, over a swamp near Dardanup a soaring column of approximately 80 White-faced Herons and 5 Straw-necked Ibis (*Threskiornis spinicollis*) was observed.

Presumably an abundance of food consequent on the drying-off of the swamps attracted the aquatic birds, and such aggregations always attract Whistling Eagles. A large dead tree-stump near the first swamp was covered with the plucked feathers of at least 6 different Grey Teal although it was not possible to say that these were killed or eaten by Whistling Eagles.

The similarity of these soaring groups of Whistling Eagles to soaring flocks of Black Kites (*Milvus migrans*) was striking, and in fact when seen without optical aid from even a fairly short distance, it was impossible to say which species composed the flocks. Not only is the slow buoyant flight and carriage of the wings similar in both species, but the aerial behaviour of the eagles, consisting of a fair amount of seemingly playful chasing and swooping at one another, was very reminiscent of the Black Kite. The Pelican was chased on a couple of occasions by single eagles, its only reaction being to increase speed.

—J. H. CALABY, Nedlands.